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grante parmi les problèmes immédiats de la province qu'elle représente. Les sessions techniques ont aussi démontré que les médecins de l'ile du Prince Edouard sont au courant des problèmes de l'heure.

Au cours des quatre réunions qui ont eu lieu dans les Maritimes, une équipe de conférenciers accompagna le président, et des travaux très efficaces furent présentés au cours des sessions scientifiques. L'Association Médicale Canadienne et ses Divisions remercient ces médecins et professeurs très occupés, de la contribution appréciable qu'ils ont apportée aux études scientifiques qui sont fondamentales dans la poursuite du but de notre organisation. Il est encourageant de remarquer cependant, que les Divisions ne dépendent pas seulement de conférenciers invités pour présenter un programme instructif car les présentations par des conférenciers locaux occupent de plus en plus une place importante dans leur programme.

Le voyage nous amena ensuite dans l'Ouest où la première des quatre réunions nous fit descendre à Moose Jaw où avait lieu la réunion de la Division de la Saskatchewan. Malgré l'ouverture de la chasse aux canards qui avait lieu le même jour, un très grand nombre de médecins et leur épouse s'enregistrèrent. Des activités techniques, scientifiques et sociales se sont poursuivies avec l'enthousiasme caractéristique de nos collègues de Saskatchewan, et à cet endroit, la contribution apportée par des conférenciers locaux au programme scientifique, fut très appréciable.

De là, nous avons assisté à la quarante-sixième réunion annuelle de la Division de l'Alberta à Edmonton. Ici, l'atmosphère stimulante de la capitale des huiles au Canada, et l'influence pondérée de l'Université d'Alberta furent évidentes. Bien que nos collègues d'Alberta soient engagés dans plusiers projets médicaux importants relatifs à leur province, ils ont trouvé le temps de discuter les plans de la quatre-vingt-troisième réunion annuelle de l'Association Médicale Canadienne, qui aura lieu à Banff et au Lac Louise au cours de la semaine de 1952. Le Dr Harold Orr, le président élu et ses comités locaux font actuellement des préparatifs pour un congrès qui sera mémorable.

La Division de la Colombie-Britannique se réunit à Vancouver où une activité variée dura pendant une semaine, y compris l'inauguration de l'Académie de Médecine de Vancouver. Cet édifice moderne offre des lieux très spacieux et abritera la bibliothèque médicale de même que le bureau et les salles de comités pour toutes les organisations médicales de la province. Un tel endroit suscita beaucoup d'envie de la part de tous les visiteurs. Une décision importante se réalisa au cours de cette réunion, et la Division de la Colombie-Britannique a entrepris de financer ses propres activités en demandant une souscription annuelle sur une base volontaire à tous ses membres.

La dernière réunion où assista le Président fut à Winnipeg où eurent lieu les assises de la Division du Manitoba. Ces session bien organisées et avec documents à l'appui, offrirent une conclusion appréciable et instructive à l'égard de cette enquête sur la médecine au Canada d'un littoral à l'autre.

Bien qu'il soit compromettant de tirer des conclusions relatives à la situation qui existe dans un organisme aussi complexe que celui de la profession médicale au Canada, il est possible tout de même d'exprimer l'opinion qui indique que le sujet est actif et vivant, même puissant, et que sous ce rapport, les conditions de la profession médicale marchent de pair avec celle de la nation.

ABSTRACTS *from current literature*

MEDICINE

Anuria in Acute Nephritis.

NABARRO, J. D. N. AND SPENCER, A. G.: BRIT. M. J., 2: 393, 1951.

The composition of body fluids is influenced by cellular metabolism and total intake of fluid, food, and electrolytes in renal homœostasis When there is no effective treatment for renal failure there is an insidious onset of changes in the distribution of body water and electrolytes, progressive acidosis; in the extracellular fluid there is an accumulation of potassium phosphate and urea, by-products of the catabolism of cellular and exogenous proteins. Over-hydration and pulmonary œdema are associated with death from renal failure, and this may be precipitated by the excessive ingestion of fluids or intravenous administration of saline. In temperate climates a 70 kgm. patients needs 1,000 ml. of water to replace extrarenal losses. The dynamic equilibrium of metabolism is upset by fever, starvation, acidosis, dehydration, and secretion of adrenal steroids in excess. Treatment should be to prevent excessive cellular metabolism. All the calories of the diet are derived from the carbohydrate, as protein would increase the potassium intake, increase the total nitrogen metabolism, and increase the acidotic tendency which in turn increases the breakdown of cells and accelerates the transfer of potassium and phosphate into the extracellular fluid. When the plasma potassium is near the dangerous levels peritoneal dialysis or the artificial kidney provide effective means for the removal of excess potassium from the extracellular fluid. When biochemical changes are not too severe dietary control will effectively maintain biochemical homœostasis. This latter method causes the least inconvenience to the patient. Testosterone administration causes protein anabolism and produces a transfer of potassium into the cells from the extracellular fluid in the normal K/N ratio, and it inhibits the output of adrenal steroids, if there is adrenal cortical overactivity in uræmia this would be an additional reason for its use in treatment.

J. A. STEWART DORRANCE

The Natural History of Venous Thrombosis.

RAEBURN, C.: BRIT. M. J., 2: 517, 1951.

The most frequent cause of thrombosis is confining elderly people to bed with or without immobilization of an extremity, and a restriction of abdominal respiration, a venous stasis basis. Platelet adhesiveness does not play as important rôle as was previously thought. Collagen underlying the vascular endothelium and derived from

the fibroblasts tends to undergo an irreversible solgel reaction in impounding blood cells. Biochemical changes in the vascular endothelium permit the permeation of intercollagenous cement substance causing an adhesive tendency and this is the primary vascular defect for the formation of a platelet thrombus. Erythrocytes are retained by the platelets and the thrombus is built up. This is followed by endothelialization and organization. Finally the thrombus becomes a fibrotic nodule containing large capillaries and a few phagocytes laden with pigment. This process continues with the formation of new thrombus at the periphery. In large veins the thrombus may lie free, breaking off segments to cause embolism. J. A. STEWART DORRANCE

Oral Treatment of Polycythæmia Vera with β-Naphthyl-Di-2-Chloroethylamine (R48).

IVERSEN, K. AND MEULENGRACHT, E.: BRIT. M. J., 2: 510, 1951.

The authors report on the treatment of six patients with polycythæmia vera of 3 to 9 years' duration with β-naphthyl-di-2-chloroethylamine or R48, a nitrogen mustard compound, in doses of 300 to 400 mgm. per day. R48 is toxic to the bone marrow and in some cases caused a fall in leucocytes. In two cases there was nausea without vomiting during the first week of oral administration, diarrhœa occurred infrequently and these were the only adverse side effects. In five cases there was a marked remission during the course of treatment lasting from five weeks to two months. The leucocyte values fell to as low as 1,200 per c.mm., a spontaneous and rapid rise commenced in 12 to 14 days after discontinuing the intake of R48. Careful and constant control by blood cytological studies is necessary in the use of R48 as the toxicity to the bone marrow might cause a resultant aplastic anæmia. Five of the six cases studied have had remissions without R48 for 7 to 19 months. The sixth was in remission for 5 months and then was recommenced on R48 therapy because of a rise in hæmoglobin. J. A. STEWART DORRANCE

The Clinical Diagnosis of Dissecting Aneurysm of the Aorta.

BERESFORD, O. D.: BRIT. M. J., 2: 397, 1951.

Dissecting aneurysm of the aorta is seldom made antemortem because of the relative infrequency of the condition, the absence of a characteristic syndrome, the limitations of special diagnostic adjuncts, and almost universal failure to bear the diagnosis in mind. Also detailed examination of the patient is prevented by the extreme illness of the patients. Such a condition is found once in every 400 to 500 necropsies, but this does not include the cases in which the condition has healed. Approximately 80% of cases occur in patients over 50 years of age, and 10% of cases recover. Males predominate over females in a ratio of 65/36, and hypertension occurs in 80% of cases. A radial pulse may be felt in 2.8% of cases, while a femoral pulse may be felt in 7.0% of cases. Other conditions frequently occur in association with aneurysm of the aorta and may mask the true underlying condition, such as coronary occlusion, with decreased or absent peripheral arterial pulsation, or "perforated ulcer" with peripheral sensory loss. Usually the E.C.G. is normal. From the time of onset of symptoms until death is 4 to 7 days and at present the only treatment is adequate sedation. Peripheral vascular disturbances are of great help in the diagnosis of dissecting aneurysm of the aorta and usually occur in more cases than is thought.

J. A. STEWART DORRANCE

SURGERY

Malignant Disease of the Testis.

PROSSER, T. M.: BRIT. J. SURG., 38: 473, 1951.

Biopsy of a tumour of the testis should not be done, rather simple orchidectomy. Removal of the testis is good treatment for most lesions causing tumours, and malignancy can be diagnosed with certainty and less danger of spread. Metastases occur in 54% of teratoma and 35% of seminoma, both spreading to the abdominal lymph nodes and teratoma more frequently to the lungs. All cases should be treated by irradiation after orchidectomy. Of the cases of seminoma treated in this way before clinical evidence of metastases were present, 66% were surviving after five years, of teratoma cases 55% were living after five years. If metastases are present when first seen only 15% were alive after 5 years, but several cases are instanced of nine to fourteen year survivals after repeated irradiation of para-aortic, mediastinal and supraclavicular lymph-node and pulmonary recurrences. Seminomas are often very radio-resistant. Complete surgical dissection of the lymphatic fields is practically impossible. BURNS PLEWES

A Critical Evaluation of Subtotal Gastrectomy for the Cure of Cancer of the Stomach.

MCNEER, G., VANDENBERG, H., SONN, F. Y. AND BOWDEN, L.: ANN. SURG., 134, 2, 1951.

A study of autopsies on patients who had died of recurrence after gastrectomy for carcinoma of the stomach in most of the New York hospitals, showed that 50% had recurrence in the gastric stump, 10% in the duodenal stump and 20% in the perigastric lymph nodes and gastric bed as the only local recurring neoplasm. Most also had distant metastases. All the 92 cases had been operated upon for cure, not palliation. In all, 80% of these autopsies showed a failure to control the neoplasm locally. 14 cases died of metastases with no local malignant growth and 4 died of unrelated cause and showed no evidence of cancer. The average survival rate of those who died of cancer was 20 months. Neither the size of the lesion nor its histologic type influenced the chance of local recurrence. It is concluded that about half of the patients operated upon for carcinoma of the stomach may have been denied the chance for cure because an inadequate amount of stomach, duodenum or lymph nodes were removed. Total gastrectomy is recommended as the most logical operation for carcinoma of the stomach. BURNS PLEWES

Streptokinase and Antibiotics in the Treatment of Clotted Hæmothorax.

CARR, D. AND ROBBINS, S. G.: ANN. SURG., 133: 853, 1951.

Streptococcal fibrobrinolysin and desoxyribonuclease are lysin enzymes and were used in an attempt to prevent the formation of "peel" when a traumatic or postoperative hæmothorax clots or becomes infected. Streptokinase is primarily active against fibrinous exudate while streptodornase is active against the desoxyribose nucleoprotein of empyema. Neither has any lytic effect against organized fibrous tissue. The drugs should not be used in the presence of a bronchopleural fistula.

The use of streptokinase and streptodornase is described in 10 cases. It appears that streptokinase will dissolve fibrin in the pleural cavity promptly and efficiently and that streptodornase is equally effective in rendering purulent exudate thin. Used together they remove substances around colonies of organisms to expose them to injected antibiotics. Decortication may be avoided but their use does not take its place once fibrous organization has occurred. BURNS PLEWES

Chronic Empyema.

SELLORS, T. H. AND CRUICKSHANK, G.: BRIT. J. SURG., 38: 411, 1951.

A full discussion of chronic empyema is based on a study of over 600 non-tuberculous cases. The pathology of pleural infections is illustrated by photomicrographs and pleurograms. The causes of chronic empyema come mostly under the heading of maltreatment of acute empyema: late or wrong drainage, or "penicillin" empyema, but abscess, bronchiectasis, new growth,

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actinomycosis and foreign bodies are also included, as are a group of causes following operations or associated with other diseases such as subphrenic abscess, œsophageal fistula and liver abscess. The authors always operate for empyema with the patient erect or sitting and emphasize that the paravertebral gutter is the commonest site of empyema so that the old teaching that the axillary line is the best site for drainage is responsible for many errors. The constant care, frequent examinations and active physiotherapy necessary are described. The bacteriology and incidence of various complications such as bronchopleural fistula, hæmorrhage, cerebral infection, and empyema necessitatis are covered before treatment is discussed. The purpose of the paper is obvious: to improve the early and adequate treatment of acute empyema. BURNS PLEWES

Small-gut Obstruction Following Combined Excision of the Rectum.

GOLIGHER, J. C., LLOYD-DAVIES, O. V. AND ROBERTSON, C. T.: BRIT. J. SURG., 38: 467, 1951.

Intestinal obstruction after resection of the rectum occurred 37 times in a series of 1,302 cases, and 4 others had symptoms but were relieved by conservative measures. Of these, 13 had adhesions not related to the kind of operation done, 1 had strangulation by a Meckel's diverticulum and 1 had a strangulated hernia through the anterior abdominal wound. Twelve cases obstructed because of adhesions or hernia in relation to the reconstructed pelvic floor. In 10 cases the obstructions were about the colostomy: adhesions, hernia into the colostomy wound, hernia between the leaves of the iliac mesocolon and three strangulated herniæ between the abdominal wall and the colostomy. All lateral space strangulations occurred in the 170 cases in which the colostomy was brought out through the paramedian incision, a more convenient situation in obese patients.

The diagnosis, treatment, mortality and results in these cases are discussed in detail. The overall mortality was 19%, including those cases treated expectantly on the erroneous diagnosis of peritoneal recurrences. Suggestions are made regarding alterations in technique of the primary operation to avoid these complications.

BURNS PLEWES

OBSTETRICS AND GYNÆCOLOGY

Sex Hormones in Experimental Diabetes.

HOUSSAY, B. A.: BRIT. M. J., 2: 505, 1951.

This group of experiments shows that after subtotal pancreatectomy diabetes appears in rats with less frequency in the female than the male. This sexual difference is due to the provocative action of the testes and androgens and a protecting influence of the ovaries and œstrogens. The mechanism of protection is apparently chiefly due to the actions of the ovaries and œstrogens in the stimulation of hypertrophy and hyperplasia of the islets of Langerhans with production of new B-cells at the expense of the centro-acinar cells. It is difficult to say yet how far this action occurs in other species. The author would rather not discuss now whether or not it occurs in man.

The peripheral action of œstrogens upon carbohydrate metabolism is not yet well known. The probability of preventing some forms of experimental diabetes, and even of curing a certain proportion of cases of not too severe diabetes, certainly exists.

It is evidently worth while to continue this line of investigation using prolonged administration of those substances already studied and other new ones, either alone or combined with insulin, in order to prevent or treat other types of experimental diabetes, and eventually human diabetes. It would be of value to discover substances which have no œstrogenic effect but cause hyperplasia of the islets and inhibit the hypophysis or adrenals. Diabetes can possibly be controlled by other mechanisms, such as direct or indirect action on tissue metabolism. Experimental medicine has given us most of our fundamental knowledge of diabetes, and it seems that it will continue to increase this knowledge. It also gives hope that new methods to prevent or even cure this disease may be discovered. ROSS MITCHELL

Pudendal Block with Hyaluronidase.

HEINS, H. C.: AM. J. OBST. AND GYNEC., 62: 658, 1951.

Hyaluronidase is a useful adjunct to the anæsthetic mixture for pudendal block since a much higher percentage of ideal blocks was secured with hyaluronidase (80%) than without this drug added to the solution (28%). There is a very rapid onset of anæsthesia. A much smaller amount of anæsthesic solution is needed for adequate blocks. There were no local or systemic reactions to the hyaluronidase. ROSS MITCHELL

Infectious Hepatitis in Pregnancy.

MICKAL, A.: AM. J. OBST. AND GYNEC., 62: 409, 1951.

Thirteen cases of infections hepatitis without acute yellow atrophy and two cases with acute yellow atrophy associated with pregnancy were seen at Charity Hospital of New Orleans from 1940 through 1949. During this time 69,186 mothers were delivered, making the incidence of the disease 0.022%. There were two deaths, giving a mortality rate of 13.3%. Conservative treatment is the procedure of choice for both the hepatitis and the pregnancy. The nutritional state of the patient is an important factor in the course that the disease will follow. Postpartal hæmorrhage, usually delayed and severe, was encountered in all cases of acute yellow atrophy of the liver.

The infants showed no effect of the maternal disease. Only one infant (premature stillborn) died, 12 survived, giving fetal survival rate of 92.3%.

Labour and delivery were not adversely affected by the hepatitis. Acute yellow atrophy need no longer be considered a separate obstetric entity. ROSS MITCHELL

PÆDIATRICS

Study on Orange Juice, Orange Juice Concentrate, and Orange Peel Oil in Infants and Children.

JOSLIN, C. L. AND BRADLEY, J. E.: J. PEDIAT., 39: 325, 1951.

Vitamin C is necessary for the utilization of acetoamino acids, aiding in the resistance to infections, healing of wounds, collagen formation, and calcium metabolism. The authors studied 406 infants and children from 2 weeks to 6 years of age (14 of whom were eczematous) with regard to regurgitation, bowel movements, skin rashes, skin test sensitivity, the pH of orange juice and orange peel oil, and side effects. Orange peel oil pH averaged 5.65, while the pH of orange juice concentrate averaged 3.76. Patch tests showed that 1.8% of the group studied were sensitive to orange juice, while 5.3% were sensitive to orange peel oil. No disturbances of bowel function could be attributed to the orange juice preparations. Orange juice feedings were commenced at the beginning of the third week, starting with ¼ ounce of orange juice diluted with an equal volume of water and gradually increasing it with the volumes of the other formulæ. The orange juice should be extracted from the fresh fruit with a maximal reduction of peel oil by gentle squeezing rather than by exerting undue pressure on the peel. J. A. STEWART DORRANCE

The Use of Ascorbic Acid Tablets to Enrich Milk for Infant Feedings

HOLMES, A. D., JONES, C. P. AND TRIPPS, F.: J. PEDIAT., 39: 320, 1951.

The reduced ascorbic acid of milk in clear glass bottles is oxidized very rapidly, and none remains after ½ hour of exposure to bright sunshine. The rates of loss of re-

duced ascorbic acid of milk stored in dark refrigerators is from 84.8 mgm./l. on the first day to 55.1 mgm./l. on the fifth day. The diet of an infant may be supplemented by orange juice, but this medium contains a variable amount of reduced ascorbic acid depending on the type of fruit, geographical region of growth, seasonal date of picking, and position on the tree in relation to exposure to sunlight. The authors suggest the use of suitably prepared tablets containing reduced ascorbic acid which might be added to the formula as it is prepared, in order to ensure a standardized uniform amount of reduced ascorbic acid sufficient to meet the daily nutritional requirements of infants.

J. A. STEWART DORRANCE

The Electrocardiogram in the First Two Months of Life.

FURMAN, R. A. AND HALLORAN, W. R.: J. PEDIAT., 39: 307, 1951.

The authors studied 70 electrocardiograms obtained from 52 patients, all of whom had normal chest roentgenograms and negative physical examinations. During this neonatal period there are constant findings in the mechanism, heart rate, P-R interval, QRS duration, duration of electric systole, S-T junction, P and Q waves. The T wave does not show changes during the first few days of life and by the second week it shows a transition to the subsequent normal of this period. During the third week there is a marked decrease in the right ventricular preponderance characteristic shortly after birth.

J. A. STEWART DORRANCE

The Effect of Cortisone on Nutrition.

GEPPERT, L. J., O'HARA, B. F. AND PEAT, A. C.: J. PEDIAT., 39: 267, 1951.

Patients receiving cortisone experience two types of gain in body weight; a progressive nutritional gain, not quickly decreased upon discontinuing cortisone therapy, and a rapid, fluctuating, unstable weight gain due to œdema and retention of fluid, which disappears quickly within a few days when cortisone is discontinued. The authors studied three child patients on cortisone therapy to distinguish between the two types of gain in body weight due to nitrogen retention and fluid retention. In all three cases, while on large initial loading doses of cortisone, there was a marked bulimia and a concomitant rise in caloric, nitrogen, electrolyte, and water intake, this counterbalanced the antianabolic and hypokalæmic effects to maintain normal serum levels. The increased intake of potassium and nitrogen is desired, but the retention of sodium and chloride causing an increase in extracellular fluid and œdema may indicate cessation of therapy. Consequently the diet should contain a minimum of salt and potassium administration is unnecessary if there is an adequate food intake. Appetite was increased four to five-fold in 48 to 72 hours after cortisone therapy was commenced, and the undesirable gain in body weight due to œdema may be prevented by restricting the salt in the diet. J. A. STEWART DORRANCE

Cerebral Palsy in Children.

BAKWIN, R. M. AND BAKWIN, H.: J. PEDIAT., 39: 113, 1951.

The incidence of cerebral palsy is 7 children born per year per 100,000 population. Etiological factors are varied, frequently the child is the first born of a woman in the fourth decade. There is a high incidence of a maternal history of abortions, premature labours, and stillbirths, complicated by hyperemesis gravidarum, anæmia, and hæmorrhages. Precipitate delivery and other difficulties of delivery are frequent. In 66% of cerebral palsied children there is a neonatal history of cyanosis, twitching, convulsions, crying and vomiting. Injury at birth occurs in 55%, congenital cerebral defects in 23%, and postnatal head injury in 5%. Premature infants with increased fragility of blood vessels and softer cranial bones often show an increased incidence of cerebral palsy. There are five types, spastic 40%, athetoid 40 to 45%, ataxia 10%, tremorous 5% and rigid 5%. One-third of cerebral palsied children are feeble-minded, most often in the spastic and rigid groups. Mental performance may be reduced by the over-use of anti-epileptiform drugs. Special consideration should be given to these handicapped children in school, preferably in separate classes. Speech disturbances occur in 75%, and some cerebral palsied children never acquire speech while many are benefited by speech therapy. Reading may be taught when the child has a mental age of 6 years. The cerebral palsied child's reactions to his disability are: (1) depression; (2) anxiety; (3) resentment; (4) resignation and indifference; (5) defiance. The reaction is determined by the attitude of other people, particularly the parents. During adolescence the handicapped child realizes more than ever that he is not fully equipped to face adult life. The management of a cerebral palsied child should be toward ultimate independence, a well developed social sense, and if possible eventful gainful employment in an occupation he can fulfil without anxiety or frustration.

J. A. STEWART DORRANCE

DERMATOLOGY

Wool As a Cause of Eczema in Children.

HILL, L. W.: NEW ENGLAND J. MED., 245: 407, 1951.

This is a seasonal topic, for as Hill, the widely-known Boston pædiatrician points out, wool is a frequent cause of eczema in children "veritably smothered in wool in winter", which recurs at the onset of cold weather and begins to improve as warm weather returns. The favoured sites are the front of the neck, the ankles, wrists, backs of hands, the arms and the legs. The mother notices that wool produces it. Once started it is aggravated and protracted by the incessant rubbing and scratching, persisting of its own right by reason of the chronic pathologic changes thus produced, irrespective of further contact with the allergen. Absorption of the allergen from the abraded area, possibly also from inhalation of wool dust, probably accounts for its appearance on parts of the body not in contact with wool. Positive scratch tests are uncommon; all positive patch tests are clinically significant; no strongly positive intracutaneous tests were observed in the author's series, and their significance was considered doubtful. The ordinary patch test of 1 or 2 days is unlikely to give a positive test; the patch must be in place for several days, preferably a week, wet undyed wool being used on a lightly abraded area. Hill advises that the local medication be covered by soft white cotton cloth (never gauze), snugly bandaged in place with several layers of 2-inch elastic bandage for 24 hours in the day. D. E. H. CLEVELAND

Is Mycosis Fungoides a Reticuloendothelial Neoplastic Entity?

CAWLEY, E. P., CURTIS, A. C. AND LEACH, J. E. K.: ARCH. DERM. AND SYPH., 64: 255, 1951.

"Within recent years the pendulum of dermatological opinion has swung away from an infectious cause (for mycosis fungoides) and has placed the disease quite securely among the lymphoblastomas, thus emphasizing its probable neoplastic nature". The disease is ordinarily described as presenting three stages: (1) the premycotic or erythematous, showing red, scaly nondescript lesions often mimicking eczema, psoriasis, seborrhœic dermatitis, erythema multiforme and exfoliative dermatitis; (2) the infiltrative stage showing plaques of bizarre configuration and vivid colour; (3) the fungoid stage consisting of livid red tumours. Intractable pruritus commonly characterizes the first two stages. The insidious onset of the premycotic stage may occasion much diagnostic confusion and a period of observation is often necessary before diagnosis can be established. The disease is one of later life and there is a male sex-pre-

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dominance. Of the 10 cases reviewed in detail by the authors, in the University of Michigan Hospital, cutaneous lesions had been present at the time of admission for periods varying from 6 months to 43 years. Repeated and careful examination failed to show a typical blood picture associated with the disease. Significant roentgenological findings were of no help in establishing the diagnosis; no osseous changes of the disease have been demonstrated. In 8 of the 10 patients involvement of structures and organs other than the skin occurred, and the disease must no longer be regarded as a strictly dermatological disorder. There was a remarkable variation found in the microscopic studies of involved tissue. These are given and illustrated in much detail, and in the 10 cases of "unequivocal clinical examples of mycosis fungoides . . . the pathological findings . . . clearly uphold the alleged reticuloendothelial origin of mycosis fungoides and its classification among the lymphoblastomas but militate against its recognition as a pathological entity." Death resulted in 5 cases from cachexia, in 4 from lymphoblastomatous involvement of structures and organs other than skin, and intercurrent infection in 1. D. E. H. CLEVELAND

The Cutaneous Toxicity and Therapeutic Effectiveness of Penicillin O.

MARSH, R. R. AND TILLOTSON, J. G.: NEW ENGLAND J. MED., 245: 17, 1951.

Penicillin G has a high sensitizing index, which in the opinion of many precludes its use as a topical remedy, and demands caution even in its parenteral use. Many different penicillins have been produced by altering the composition of the culture media, and one, because of its antibiotic potency, and its rare production of reactions, called Penicillin O because of its onion-like odour, has been studied and is reported on. 50 of 52 hospitalized patients were treated with penicillin O by intramuscular injection, and two by aerosol inhalation. One patient was given intrathecal injections in addition to intramuscular. In 4 patients cutaneous reactions occurred; 2 of these were in a group of 5 known to have reacted previously to penicillin, and 2 occurred in 4 patients definitely known to have had no previous injections of penicillin. The eruptions resulting in the 4 cases were pruritic macular or maculo-papular rashes, in one case accompanied by facial œdema. The eruptions subsided in a few days after withdrawal. *In vitro* studies have shown that penicillin O has essentially the same antibiotic activity as penicillin G, and in some cases at least will not cause reactions in patients who have previously developed toxic eruptions from the latter drug. D. E. H. CLEVELAND

Dermatitis from Local Anæsthetics. With a Review of 107 Cases from the Literature.

LANE, C. G. AND LUIKART II, R.: J. A. M. A., 146: 717, 1951.

The condition described is one, which as the authors state is not uncommon, and has not lost in news value since the report by Mook in 1920. Procaine dermatitis among dentists is a matter of common knowledge. Cases are encountered more commonly than the paucity of literature would suggest, among users of ointments and creams containing local anæsthetics, especially when used to relieve pruritus, and particularly in the presence of an already irritated skin. Amongst the commoner of these are butesin picrate, pontocaine, nupercaine, benzocaine and butyn. There is a very wide use of the local application of anæsthetic agents, many firms having produced preparations for relief of cutaneous symptoms in much the same way as the antihistaminic preparations are being brought out today. The authors consider that it would be advisable that some sort of warning concerning possible sensitization should accompany such preparations when prescribed for local use. In the discussion following presentation of the report it was stated that a fundamental error has been made in assuming that a substance which will anæsthetize the conjunctiva or produces anæsthesia on injection will relieve itching on application to unbroken skin. Research so far has not found this to be the case. D. E. H. CLEVELAND

Electron Microscope Study of Epidermal Fibres.

ADOLPH, W. E., BAKER, R. E. AND LEIBY, G. M.: SCIENCE, 113: 658, 1951.

Various explanations have been given of the intracellular fibres in the stratum spinulosum of the epidermis, which have been put forward over many years. One of the most widely accepted has been that they are extensions of the intercellular bridges, but others have regarded them as artifacts. The above workers in the School of Medicine of the University of Southern California examining sections cut at right angles to the skin surface with the electron microscope have shown that the intercellular bridges appear to terminate at the cell boundaries, but cannot decide whether they are protoplasmic or not. They show that a fine feltwork of fibres are present in the precipitated cytoplasm of the cells, but they are of a different order of size than the intercellular fibres and are laid down in a random manner having no apparent relation to them. They believe that they are most probably an impression of intracellular fibres lying just above or below the plane of focus of the light microscope and are thus artefactal due to the limited depth of field of the instrument. D. E. H. CLEVELAND

PSYCHIATRY

Value of Antabuse as Adjunct Therapy for Alcoholism.

WEXBERG, L. E. *et al.*: MED. ANN., DISTRICT COLUMBIA, 20: 202, 1951.

Wexberg and associates discuss the use of antabuse (tetraethylthiuram disulphide) as an adjunct in the rehabilitation of alcoholics and stress that the patient must have at least average intelligence and must realize the risk he incurs should he return to drinking alcohol while taking antabuse. The patient's intelligence and motivation should be ascertained by psychological tests (*e.g.*, Rorschach and thematic apperception tests). Psychiatric inquiry should also be used. This covers the patient's early history, social adaptability, educational level, work status, marital relations, religious background, and the development of the drinking problem. A complete physical survey is also needed and should include electroencephalogram, electrocardiogram, test of basal metabolic rate, liver and kidney function studies, and a glucose tolerance test. Contraindications to the use of antabuse are diabetes mellitus, cirrhosis of the liver, chronic or acute nephritis, myocardial failure, coronary sclerosis, pregnancy, epilepsy, and exophthalmic goitre. The patient must not drink for four or five days before antabuse is given. The first dose of the drug is 2 gm. This is decreased by half a gram each day to the maintenance dose of about 0.75 gm. The drug is given daily before breakfast. On the eighth day of treatment the patient is given 15 c.c. of 90-proof whiskey every 15 min. After about three doses a reaction follows, the peak of which is reached in 30 to 60 min. The first and second tests with alcohol should be made in a hospital. Should the antabuse-alcohol reaction be too severe, 1,000 c.c. of 5% glucose in isotonic sodium chloride solution with 1,000 mgm. of ascorbic acid should be given intravenously. Ephedrine, 24 mgm., should be given intravenously if the blood pressure drops alarmingly. So that possible insidious toxic effects of the drug may be discovered, complete blood cell count, liver function studies, basal metabolic rate determination, and urinalysis should be done at frequent intervals. F. W. HANLEY

INDUSTRIAL MEDICINE

The Specialist Looks at Everyday Medical Care in Industry: Psychiatry.

DUE, F. O.: J. A. M. A., 146: 1183, 1951.

Many lost hours in terms of manpower could be saved by the consideration that employees are persons who

react to even subtle stresses and tensions. The doctor has special confidence from the worker and his attitudes can be very influential. The chief emphasis must be placed in prevention of disability from emotional disturbances and psychiatric illnesses that could arise from complications in the worker's industrial and personal life.

Perhaps the greatest step toward the development of a psychiatric orientation in the medical staff is the cultivation of an alert awareness of the emotional attitudes and tensions in the everyday lives of the workers to which care is administered. A disciplinary, judgmental and critical attitude should be avoided. Physicians and nurses should be able to produce in the patient the feeling that they are friendly and impartial confidants who will at all times try to see the patient's side of the story. Even if the patient's complaints do not seem valid or concrete, the interviewer should consider that every complaint represents some real problem for the complainant. It is the physician's task to try to diagnose the latent problem. Besides careful history taking, the patient's manner of relating his history and complaints, an evaluation of his facial expressions and the amount of pressure apparent in his general speech and attitudes, should all be recorded as possible signs of emotional factors in the presenting complaints. Treatment that can be given by the industrial medical team may include permissive listening to the patient, recommendations, reassurances, suggestions, and manipulation of the environment. Certain symptoms afford clues in themselves to the exciting agent, *e.g.*, recurrent headaches often indicate underlying resentment that cannot be expressed. Referrals of more serious conditions should be prepared carefully for referral to a psychiatrist, the patient being told frankly the type of specialist he is being sent to.

Special psychiatric problems, *e.g.*, alcoholism, accident-proneness and compensation are discussed. With regard to the last, the author points out that many patients claiming compensation are bandied about until they become confused and resentful, and by the time they reach a psychiatrist it is impossible to resolve the complicated superstructure of grievances and countergrievances without complete settlement of the case by cash payment. He believes that many compensation cases that terminate in court battles do so through continued episodes of mismanagement. Many such outcomes can be avoided by careful investigation of the emotional factors at the time the injury is sustained, along with sympathetic and understanding management early in the condition.

F. W. HANLEY

The Epidemiology and Social Significance of Atmospheric Smoke Pollution.

McDONALD, J. C., DRINKER, P. AND GORDON, J. E.: AM. J. M. SC., 221: 325, 1951.

In its relation to public health, the purity of the air we breathe is significant. Smoke pollution of the atmosphere is an old problem. For at least a century investigators have tried to evaluate its alleged detrimental effects on climate, health, animals, vegetation, buildings and other structures, but only rarely have their results been pooled and the total cost of smoke assessed. In this article the authors review what is known about atmospheric pollution due to smoke, as it occurs in urban communities. They deal only indirectly with the many contaminants other than smoke which are introduced into the air in the course of industrial processes. Information on this subject is presented with considerable detail, under the following headings: the epidemiologic problems, smoke as an agent of disease, environmental determinants of smoke, smoke and man's environment, smoke and human health, and, experimental studies. Using the existing evidence the authors then attempt to evaluate the direct influence of atmospheric smoke pollution on human health.

That the dosage of the agent at work in any community is determined by the nature and quantity of fuel, the methods of combustion, the topography, and the meteorological factors, is certain. The case against smoke stands or falls by its effect on the respiratory tract. So far there is no way of separating the influence of a period of high concentration of smoke from the influence of the environment which determines that concentration. The authors emphasize that multiple causation is the rule in natural disease. Smoke itself is a mixture of many potential agents and it seems reasonable to expect some degree of synergistic action both between them and between infective and climatic factors. In their opinion its carcinogenic activity must be left as an open question. Further investigation along that line is justified. The need for further evaluation of smoke as an agent of disease, is clear. The authors suggest the following lines of investigation: (1) The best possible use of available data. Past efforts have been inconclusive. (2) Laboratory studies on animals to assess synergism and antagonism among components of smoke, infective agents, temperature and relative humidity, in their action upon respiratory tissue. (3) Field studies of specific population groups to yield information on the range of variation of susceptibility of human beings to the effect of certain irritants and of factors which influence it.

MARGARET H. WILTON

Heart Disease and Industrial Medicine . . . Recent Trends in the Evaluation of the Cardiac Worker.

HYMAN, A. S.: NEW YORK STATE J. MED., 50: 1603, 1950.

In this article the author presents the dual rôle to be played by industrial medicine in the consideration of the worker handicapped by potential or actual cardiovascular disease. Of major importance as far as management is concerned, is the detection of the candidate for coronary disability before the episode occurs. The worker with an impaired coronary mechanism must not be permitted to attempt physical strain beyond toleration limits. The man who has heart disease must receive consideration. Industrial medicine must find a place in the scheme of occupational self-sufficiency for such employees; their various skills and experience constitute a rich supply of manpower which has been neglected.

The cardiovascular diseases have played an increasingly important rôle during the last one or two decades. For many years the causal relationship between trauma or physical strain and the development of cardiovascular disability has been the subject of much medical and legal controversy. The "reasonable time" between the provocative stress and the development of the acute heart attack, has been interpreted in different ways. Animal experimental work suggests that physical exhaustion alone is insufficient to produce heart disease. The causal relationship is indicated when symptoms of the cardiac episode follow promptly after the performance of the exhaustion phenomenon.

In 1940 a special committee of the New York Cardiological Society was set up to study this problem. Careful investigation of case records from a number of the larger hospitals in New York City indicated that in industrial medicine there is a very close association between unusual or prolonged muscular work and the onset of the clinical syndrome diagnosed as acute coronary thrombosis and occlusion. In about 70% of the cases, the episode occurred within six hours after the alleged stress had taken place; 44% developed coronary occlusion within an hour. Of particular importance was the discovery that in nearly every instance there was a presumptive or actual history of pre-existing coronary insufficiency. In consideration of this fact, the need for pre-employment physical and psychiatric examination is obvious. A simple physical examination will reveal the potential cardiac patient; high blood pressure, murmurs, tachycardia, irregularities and abnormal electrocardiograms will immediately screen out the candidates most likely to become an industrial medical casualty. Brief consideration is given of the syndrome "coronary insufficiency" and also of the use of exercise tolerance tests for the determination of coronary capacity for work. Reference is made also to a few health hazards in industry capable of causing disease

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to the normal heart *per se*. The rehabilitation of the so-called "cardiac cripple" is considered. The data from a number of surveys indicate that where a job can be fitted to the physical limitation of the specific heart condition, the employee has a better than average service record. With continued medical supervision many such individuals with cardiac disabilities have been able to carry on their ordinary life expectancy.

In the author's opinion industrial medicine should emphasize its rehabilitation programs to the end that cardiac cripples as well as all others with physical disabilities may have an opportunity to share in the country's productive capacity. MARGARET H. WILTON

FORTHCOMING MEETINGS

CANADA

CANADIAN PUBLIC HEALTH ASSOCIATION, Christmas Meeting of the Laboratory Section, Royal York Hotel, Toronto, Ont., December 17-18, 1951.

CANADIAN ASSOCIATION OF RADIOLOGISTS, First Mid-Winter Annual Meeting, Winnipeg, Manitoba, January 16-18, 1952.

CANADIAN MEDICAL ASSOCIATION, Banff, Alberta, June 9-13, 1952.

UNITED STATES

THE RADIOLOGICAL SOCIETY OF NORTH AMERICA, 37th Annual Meeting, Palmer House, Chicago, Ill., December 2-7, 1951.

AMERICAN MEDICAL ASSOCIATION, Clinical Session, Los Angeles, Cal., December 4-7, 1951.

THE AMERICAN ASSOCIATION FOR THORACIC SURGERY, Dallas, Texas, May 8-10, 1952.

AMERICAN MEDICAL ASSOCIATION, Annual Session, Chicago, Ill., June 9-13, 1952.

OTHER COUNTRIES

PAN-AMERICAN CONGRESS OF PÆDIATRICS, Montevideo, Uruguay, December 5-8, 1951.

WORLD FEDERATION FOR MENTAL HEALTH, Mexico City, Mexico, December 6-12, 1951.

INTERNATIONAL CONGRESS ON MENTAL HEALTH, Mexico City, Mexico, December 11-19, 1951.

PAN-AMERICAN CONGRESS OF OPHTHALMOLOGY, Fourth Congress, Mexico City, Mexico, January 6-12, 1952.

COLSTON RESEARCH SOCIETY AND UNIVERSITY OF BRISTOL, Symposium on the Supra-renal Cortex, Bristol, Eng., March 31 to April 4, 1952.

COMMONWEALTH AND EMPIRE HEALTH AND TUBERCULOSIS CONFERENCE, Third Conference, Central Hall, London, England, July 8-13, 1952.

BRITISH CONGRESS OF OBSTETRICS AND GYNÆCOLOGY, Thirteenth Congress, Leeds, Yorkshire, England, July 8-11, 1952.

INTERNATIONAL CONGRESS OF PHYSICAL MEDICINE, London, England, July 14-19, 1952.

INTERNATIONAL CONGRESS OF DERMATOLOGY, Fourth Congress, London, England, July 21-26, 1952.

NEWS ITEMS

ALBERTA

Dr. R. M. Parsons of Red Deer is making a speedy recovery following an operation at the University Hospital. Dr. Parsons is a Past-President of the Canadian Medical Association, Alberta Division. We wish him continued good health.

We are sorry to relate the loss sustained by Dr. and Mrs. Frank Law of Edmonton in the accident of recent date in which their son lost his life. The sympathy of the profession is extended to them.

Dr. Morley Tuttle of Calgary and Dr. G. S. Gray of Lethbridge have been appointed Associate Editors of the *Alberta Medical Bulletin*. This quarterly medical magazine for the Province of Alberta has been growing in importance through the continual co-operation of the authors who have put their thoughts into words regarding the varying aspects of medical practice.

Dr. James O. Metcalf has returned to Edmonton following completion of his training in genito-urinary surgery in Kingston and Toronto. Dr. Metcalf completes his five years' training and is now associated with Dr. Gordon N. Ellis. Dr. Metcalf served with the R.C.A.M.C. in the last war, he is a graduate of the University of Alberta.

During the recent visit of their Highnesses, Princess Elizabeth and Prince Philip to Edmonton a stop was made at the Col. Mewburn Hospital where many an old soldier and younger ones had an opportunity to meet their future Queen and her Consort, Prince Philip. Dr. F. G. Ramsay and Dr. A. C. McGugan welcomed and accompanied the Royal Guests through the hospital.

Dr. W. B. Leach, Director of the Pathological Department of the Royal Alexandra Hospital in Edmonton has received Certification in his Specialty from the Royal College of P. & S.[C.]. Dr. Leach is a graduate of the University of Manitoba. He served with the R.C.A.M.C.

Dr. L. A. Rook, M.A., M.R.C.S., D.O.M.S. has recently joined the medical staff of the Medical Arts Clinic in Lethbridge.

Dr. Douglas S. Gorrell of Calgary has been elected a Member of the Broncho-œsophageal Association of America. Dr. Gorrell is also certified in his specialty of Ophthalmology R.C.P.S.[C.], and R.O.L. by the Senate of the University of Alberta.

Dr. Dorothy Barnhouse of Edmonton has returned from a postgraduate tour of England, Sweden, Denmark and France. Dr. Barnhouse is on the Anæsthesiology Department of the University Hospital. During the war Dr. Barnhouse served with the R.A.M.C. in Africa and on the Continent.

Dr. Colin A. Ross, a graduate of the University of Alberta, has returned to Edmonton following the completion of his training in Thoracic Surgery in Newcastle-upon-Tyne under Mr. George Mason, F.R.C.S., for two and a half years. This was followed by a tour of Oslo, Stockholm and the Continent. W. C. WHITESIDE

BRITISH COLUMBIA

The Annual Meeting of the British Columbia Division of the Canadian Medical Association, held on October 3 to 5, was a very successful one. It marked the inauguration of the new Division, which takes the place of the old British Columbia Medical Association. It met under the presidency of Dr. H. A. Mooney, of Courtney,